

# **Speech Development in Scottish Children: a comparative study of the influence of local vs. non-local parental dialect on vowel acquisition**

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## **Abstract**

Our prospective study will analyse vowel patterns in 40 children living in Scotland's most heavily populated cities, Glasgow and Edinburgh. These are cities with markedly different socioeconomic compositions, and many socially stratified accent features (Stuart-Smith 1999; Chirrey 1999). Half the children will have parents with Scottish accents, and half with parents speaking Southern English accents. Transcriptional and acoustic analyses will be used to examine phonetic features and lexical sets memberships (Wells 1982) expected to differ between these two systems, e.g. monophthongal vs. diphthongal features (FACE and GOAT), potential phonemic contrast (COT vs. CAUGHT), and rhotic vs. non-rhotic pronunciations.

We report here pilot work underpinning this research. First, we report on a single case study of a child with mixed Scottish/English input in the home, whose speech patterns indicated the acquisition of a mixed system, in particular with regards to monophthongal vs. diphthongal features. Second, using data from QMU's ULTRAX project, we focus on inter-sibling variation, exemplifying a range of Scottish/English accent mixtures.

Keywords: acquisition, dialect mixing, sociophonetics, variation.

## **Background**

Most research on the norms of child language acquisition focuses on monolingual, monodialectal children, and even when approached from a sociolinguistic perspective, the issue of children learning a range of nonstandard native dialects receives little attention. This is theoretically unsatisfying, and does not address the growing number of families comprising of speakers with combinations of accents, or where children are being brought up in a dialect area markedly different to that of their parents. This monodialectal literature, moreover, tends to focus on varieties of English which are used as reference accents for language teaching, clinical norms etc., such as Southern Standard British English (SSBE) and GenAm. Many significant national varieties of English do not have this status as a "standard". For example, Scottish English is a long-standing variety, with a number of distinctive phonological and phonetic features, but clear and wide-accepted descriptive norms for this variety are lacking.

In addition, thanks to an increasingly mobile population, many native speakers of English are exposed to multiple, incompatible varieties as input during acquisition. For example, English-accented speakers have moved to Scotland and brought up children there. These children appear to develop mixed or intermediate accents, reflecting aspects of phonologically and phonetically incompatible inputs from within and outwith the home (e.g. Chambers 1992, Scobbie 2005, 2006; Watson 2009). Traditionally, research into variation in Scottish accents has been

underpinned by the assumption that speakers locate on a continuum from vernacular Scots to Scottish Standard English (least to most formal), along which they style-switch or style-drift according to their conversational circumstances (Stuart-Smith 1999). Non-Scottish accents do not feature on this continuum, nor is it clear what range of possibilities exists for composite or variable systems, given the large number of differences between these broad classes of accent.

Research into Scottish/English accent interference has recently revealed a great deal about identity and dialect use by looking at populations along the Scottish-English national border (AISEB 2012). It has identified which features are perceived as markedly ‘Scottish’ or ‘English’ by interlocutors, whether the use of these features is socially stratified, and what sound changes may be taking place. Given the increase in speakers of English dialects moving to diverse locations *throughout* Scotland, however, these factors can also be investigated far from the border, such as in Scotland’s densely populated Central Belt (Braber & Butterfint 2008). Children are active members of their speech communities (Smith et al. 2007), acquire systems forged from the models around them, and participate in sound changes within these communities (Roberts & Labov 1995), so looking at Scottish children of English parents enables a range of theoretical questions to be addressed.

Dialect variation within Scotland also has to be taken into account when considering the interplay of Scottish vs. non-Scottish elements in a speaker’s accent. There are marked social and geographical differences between varieties. Therefore what occurs when SSBE is mixed with “Scottish” English can be expected to vary, depending on context.

### Case Study 1: Mixed parental input (Glasgow)

This study (Watson 2009, with the collaboration of Jane Stuart-Smith) comprised of a series of six one hour recording sessions, conducted over a period of three weeks, of a child aged 3;1 (years; months) living in Glasgow, Scotland, with parents of differing British English accents; one speaking Scottish Standard English (SSE), and the other Southern Standard British English (SSBE). The child was asked to participate in various picture naming tasks (selected with the elicitation of particular lexical set features in mind) and to read rhyming books in three different circumstances: repeating words after his mother, repeating words after his father, and taking part in the tasks by himself.

The results indicated that the child appeared to be developing a mixed accent. While the child (as expected) varied in his speech, his overall preferences in the FACE and GOAT lexical sets (which are often described as clear perceptual indicators of a Scottish accent in their monophthongal form) were worthy of note (Table 1).

Table 1 – Case Study 1: Vowel variants within the family

Feature	SSE (local area) parent uses	SSBE parent uses	Child most commonly uses
FACE	[e]	[eɪ]	[eɪ]
GOAT	[ɔ]	[ʌʊ]	[o]

This clearly demonstrates that the child's mixed parental dialect input was having an impact on the acquisition of his vowel system; the reasonably consistent use of a non-local feature in his discourse implies that the mixing of the two systems (which are incompatible in these features) results in a measureable preference for one usage over another.

### Case Study 2: Siblings (Edinburgh)

Siblings also form an interesting test case, when the parental input, of whatever nature, is constant. What can change may be the location in which acquisition is progressing, the peer group, or the child's attitudes and sense of identity.

We examined word list data from the ULTRAX project's corpus of Scottish children (Ultrax 2013), looking at siblings in Group 1 (15 children from six families), narrowing our focus on those who impressionistically had mixed accents. Two pairs of siblings fitted these criteria.

The materials, created for a different purpose, provided a number of tokens which could be evaluated, and we looked at two key features. The first was the presence of a Scottish monophthong rather than a diphthongal vowel in the FACE lexical set (as above). The second was the presence of a coda /r/, which is typically Scottish, as opposed to SSBE-like non-rhoticity.

The results exemplify the fact that siblings can demonstrate different patterns of use for these distinctively Scottish vs. English accent features despite being raised in the same family.

Table 2 – Case study 2: Two siblings from Family A (number of viable tokens for each feature per sibling in brackets)

Sibling	09TD1M (male)	10TD1F (female)
Age in years; months	8;7	6;8
% monophthongal FACE	0 (2)	100 (2)
% use of coda /r/	14 (7)	100 (7)

Table 3 – Case Study 2: Two siblings from Family B (number of viable tokens for each feature per sibling in brackets)

Sibling	17TD1F (female)	18TD1M (male)
Age in years; months	12;8	10;7
% monophthongal FACE	100 (3)	0 (3)
% use of coda /r/	100 (9)	67 (9)

Age and birth order appear to have no effect on potential variation in this selection of speakers; the only commonality is that the males demonstrate the use of considerably more Anglicised accent features than the females. Although these are only two features out of a large potential selection, they are salient aspects of a Scottish accent, and their use or lack thereof can be an indicator of a person's sense of identity and/or attitude to local varieties. Holistically, these two boys have a different, English, accent to their Scottish-accented sister in each case, and these two variables are in part responsible for this impression.

## Conclusion

While the existence of the Scottish continuum cannot be denied, it is arguable that it does not allow for the variation currently taking place as a result of demographic changes in the country. Such complexity can be expected in any speech community. Young children can be vehicles for linguistic change, and there is no account made on the Scottish continuum for those children who are growing up in mixed dialect environments.

Further research in this area is required, and our prospective study will look at speakers who are growing up in two areas of Scotland where the dialect they hear from their peers may be different from that which they hear at home; this may be more socially acceptable or commonplace in one area than the other, and this may in turn have a bearing on their language use. We will also take into account sociolinguistic variation in the context in which the families of the children live, which exposes them to different types of Scottish accent in their immediate communities.

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